

## PATENT ABSTRACTS OF JAPAN

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## (54) PURIFYING METHOD OF CARBON NANO-TUBE

**(57)Abstract:**

**PURPOSE:** To obtain a high purity carbon nano-tube by adding an acid to a carbon nano-tube, which is produced with a metallic catalyst and contains the metallic catalyst and a metallic carbide as impurities to dissolve the impurities.

**CONSTITUTION:** The unpurified carbon nano-tube containing the used metallic catalyst and the metallic carbide as the impurities is produced by using a carbon rod as a positive electrode, a mixture of the metallic catalyst (e.g. iron) with carbon as a negative electrode for discharge electrode and a hydrocarbon as a gaseous starting material and applying a method such as arc discharge. Next, the high purity carbon nano-tube is obtained by adding the acid (e.g. nitric acid) to the unpurified carbon nano-tube and preferably heating to dissolve the impurities wherein a method for removing the impurities by pulverizing, dispersing the unpurified carbon nano-tube in a liquid and introducing and passing the liquid through magnetic field can be also used.

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